

(C) WPI / DERWENT

AN - 2001-538891 [60]
AP - JP19990317904 19991109
CPY - TOKE

DC - E36 H04 J01 J04 X16
DR - 1066-P 1066-U 1532-P 1532-U
FS - CPI;EPI

IC - C01B3/38 ; C01B3/56 ; H01M8/06
MC - E11-Q01 E11-Q02 E31-A02 E31-N05C H04-E06 H04-F02E J04-E02 N06

M3 - X16-C17
[01] C101 C550 C810 M411 M424 M720 M740 M904 M905 N105 N164 N209 N224
N262 N441 N513 N514 N515 Q431 Q436; R01532-K R01532-P; 1532-P 1532-U
[02] C106 C108 C530 C730 C800 C801 C802 C803 C805 C807 M411 M424 M720
M740 M750 M904 M905 M910 N105 N164 N209 N224 N262 N309 N343 N441 N513
N514 N515 Q431 Q436; R01066-K R01066-P R01066-X; 1066-P 1066-U

PA - (TOKE) TOSHIBA KK

PN - JP2001139304 A 20010522 DW200160 C01B3/38 005pp

PR - JP19990317904 19991109

XA - C2001-160633

XIC - C01B-003/38 ; C01B-003/56 ; H01M-008/06

XP - N2001-400482

AB - JP2001139304 NOVELTY - The modifier has sealed part filled with
modification catalyst layers which convert heating gas (I) containing
methane and water vapor to hydrogen rich gas, heating tube made of
porous ceramic substance of zirconite adjoining partitions divided by
catalyst layers for heating gas (I). Header in sealed part supplies
heat carrier to heating tube and another header and outlet collects
carbon dioxide.
- DETAILED DESCRIPTION - The modifier has a inlet part which supplies
heating gas containing mixture of methane and water vapor to the
partitions divided by the modification catalyst layer filled in sealed
part. The heating tube made of porous ceramic substance of zirconite
through which heat carrier passes, for permeating only carbon dioxide,
is arranged to adjoining partition. The header is provided in sealed
part and circulates a heat carrier to each heating tube. The heating
gas is heated in the heating tube in the presence of carrier and
catalyst converts heating gas into a hydrogen-rich gas. Another header
provided in sealed part and outlet part collect obtained carbon
dioxide.
- USE - For formation of hydrogen rich gas from methane and water vapor
and for collection of carbon dioxide separately.
- ADVANTAGE - Since carbon dioxide is not released and is collected
separately by modifier, global warming caused by carbon dioxide
released into atmosphere is reduced. The modifier sets the temperature
of the waste gas as heating source ejected from gas turbines to 600
deg. C.

- (Dwg.0/5)

CN - R01532-K R01532-P R01066-K R01066-P R01066-X

DRL - 1532-P 1532-U 1066-P 1066-U

IW - FUEL MODIFIED CATALYST LAYER CONVERT HEAT GAS METHANE WATER HYDROGEN
RICH GAS POROUS CERAMIC HEAT TUBE ADJOIN LAYER HEADER OUTLET PART
COLLECT CARBON

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RICH GAS POROUS CERAMIC HEAT TUBE ADJOIN LAYER HEADER OUTLET PART
COLLECT CARBON

NC - 001

OPD - 1999-11-09

ORD - 2001-05-22

PAW - (TOKE) TOSHIBA KK

TI - Fuel modifier has catalyst layers for converting heating gas of

Pr. 2001
P... 1-2 = 2